

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

TROVER GROUP, INC. and
THE SECURITY CENTER, INC.,

Plaintiffs,

v.

DEDICATED MICROS USA, *et al.*,

Defendants.

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Case No. 2:13-CV-1047-WCB
LEAD CASE

CLAIM CONSTRUCTION MEMORANDUM OPINION AND ORDER

On March 2, 2015, the Court held a hearing to determine the proper construction of the disputed claims of the patent at issue in this case, U.S. Patent No. 5,751,346 (“the ’346 patent”). After considering the arguments made by the parties at the hearing and in their claim construction briefing (Dkt. Nos. 82, 87, and 90), the Court issues this Claim Construction Memorandum Opinion and Order.

The ’346 patent is entitled “Image Retention and Information Security System.” It recites methods for acquiring and storing digital video images to create records to be used as part of a security system, such as records of the video surveillance of a bank lobby. Claims 4, 5, and 7 of the ’346 patent are asserted in this action.

The methods of those claims provide for the operation of a security system by digitizing time-spaced images from a surveillance video camera. The methods entail comparing two successive images from the camera to measure the extent of the change from the first image to the second, and then storing the second image in digital storage if the amount of the change in

the image is greater than a particular amount, measured by the number of pixels that are changed by more than a selected reference value. If the extent of the change from the first image to the second is less than the selected value, the second image is not stored. That process is repeated, and those images that reflect changes greater than the reference value are accumulated in a digital storage device and retrieved for examination when needed.

The three asserted claims are generally similar. Claim 4 recites “[a] method of performing a surveillance operation with a video security system” comprising the steps of, first, capturing a first image with a video camera and digitizing that image; next, capturing a second image and digitizing that image; next, comparing the first digitized image with the second to determine the number of pixels in corresponding locations in the two images that have changed by more than a preset amplitude; next, storing the second image if the number of changed pixels in that image exceeds a selected reference number; and finally, storing a group of such second images in digital storage and retrieving at least one of the stored images for examination.

Claim 5 is generally similar except that it recites the steps of “capturing a first image from a video camera at a first time and digitizing said first image which comprises a first digitized image which comprises an array of pixels”; then storing the first digitized image as a temporary image; then capturing and digitizing a later image from the video camera, and comparing that image with the temporary image “to determine the number of pixels in corresponding locations in the two digitized images which have amplitudes that are different”; then comparing the number of different pixels with a reference number to determine if the number of different pixels is greater than the reference number; and finally, storing the new digitized image in digital storage “only if said determined number of pixels exceeds said

reference number, wherein said second images can be read from said digital storage.” Those steps are then repeated for a number of cycles to store a number of digitized images, at least one of which is retrieved for examination.

Claim 7, which is described as a “method of operation for a video security system,” is generally similar. It recites the steps of “transferring an output signal from a video security camera to an image digitizer”; then “digitizing first and second time spaced images from said video security camera when said camera is connected to said image digitizer”; then comparing the first and second images to measure the extent of change from the first image to the second; then comparing the extent of change to a reference value to determine if the extent of change is greater than the reference value; and finally, storing the second image only when the extent of change is greater than the reference value.

Prior to the claim construction hearing, the parties agreed on the claim construction of several terms in the ’346 patent. See Dkt. No. 60, Joint Claim Construction and Prehearing Statement. The Court accepts those agreed-upon constructions and will not address them here. The remaining claim terms that are in dispute are addressed below.

1. “storing said second digitized image only if said determined number of pixels exceeds said reference number” in claim 4

The plaintiffs propose the following construction: “the second digitized image is stored when the determined number of pixels exceeds the reference number, and it is not stored when the determined number of pixels does not exceed the reference number.”

The defendants propose the following construction: “only the second digitized image is stored when the determined number of pixels exceeds the reference number, and no image is stored when the determined number of pixels does not exceed the reference number.”

The practical difference between the two proposed constructions is this: Under the defendants’ construction, an image would not be stored if it was not changed from the prior image. Under the plaintiffs’ construction, however, the claim would read on a method in which a new digitized image is stored not only when the image is changed from the first image, but at other points as well, even when there is no change from a first image. The plaintiffs argue that the claim language provides that a “second digitized image” will not be stored if it is not changed from the “first digitized image.” However, the plaintiffs contend that the claim does not foreclose storing images other than those designated as the “second digitized image,” even if those saved images are not changed from the “first digitized image.”

The defendants argue that the plaintiffs’ proposed construction is inconsistent with the language of the claims and the purpose underlying the patent, which is to save digital storage space by storing an image only if it is different from the immediately preceding recorded image. The Court agrees with the defendants’ proposed construction, which is consistent with the language and purpose of the patent, as well as its prosecution history.

The language of the claim strongly favors the defendants’ proposed construction. The ordinary meaning of the words “only if” in claim 4 precludes the storing of images that are not changed. Thus, if “said second digitized image” is stored “only if said determined number of pixels exceeds said reference number,” the normal understanding of that phrase would suggest

that the method does not provide for an image to be stored unless it is changed by the requisite amount from the immediately preceding image.

To be sure, the language of the plaintiffs' proposed construction could be read to embrace that understanding, as they propose that the phrase be construed to provide that the second image will not be stored "when the determined number of pixels does not exceed the reference number." However, from the plaintiffs' briefs and from their position at the claim construction hearing, it is apparent that the plaintiffs interpret their proposed construction to allow the claim to read on a method in which the system stores images even when they are not changed. The plaintiffs' theory is that as long as one image is stored when it is changed, that stored image satisfies the requirement that an image is stored "only if" the determined number of [changed] pixels exceeds the reference number. According to the plaintiffs, the claim permits other images to be stored, even when the determined number of pixels does not exceed the reference number, because the claim uses the term "comprising" in reciting the method steps, so that the storage of those images is simply an additional step that is not recited in the claim.

To put it bluntly, that makes no sense. Because the claim refers to storing an image "only if" a particular condition is satisfied, the only sensible understanding of that language is that it means the image will be stored when that condition is satisfied and not when that condition is not satisfied. A method that provides for the storage of images when the condition is satisfied and also when it is not satisfied does not meet that limitation of the claim.

The specification supports that interpretation of the claim language. The specification explains that the goal of the invention is to save storage space rather than to store numerous images that reflect no change from the previous images. As the specification states, "by

requiring a minimum threshold of change before an image is actually captured and stored, slow moving changes” do not trigger storing any images. ’346 patent, col. 7, ll. 28-33. Therefore, the specification adds, “only images in which there are changes” are stored, which saves space on the disk drive used for storage. Id., col. 7, ll. 34-36. “The selection of only a changed images [sic] for storage substantially reduces the number of images that are stored and thereby conserves storage space on the disk drive.” Id., col. 11, ll. 18-21. That language reinforces the clear meaning of the claim terms, in that it indicates that only changed images are stored, and that no image is stored when the reference number of changed pixels is not reached.

It is important to recognize the implications of the plaintiffs’ claim construction theory. Because they regard the “storing” limitation as satisfied as soon as one changed image is stored, their proposed claim construction would cover a method that stored one changed image and then an unlimited number of additional, unchanged images. That is contrary to both the plain language of the claim and the overall purpose of the invention, as revealed in the specification.

Finally, the prosecution history contains clear disclaimers that make it quite apparent that the invention does not sweep as broadly as the plaintiffs propose. In the course of the prosecution of the ’346 patent, the applicants explained, “Each of the pending independent claims recites the digitizing of first and second images, comparison of the first and second images to measure an extent of change, comparison of the extent of change to a reference value and the storing of the second image when the extent of change is greater than the reference value.” Amendment (Aug. 14, 1996), at 2, Dkt. No. 82-2, at 86. The applicants then stated, unequivocally: “The advantage of the present invention is that only those images having changes from the previous images are stored.” Id. That statement squarely rebuts the plaintiffs’

contention that the claims in prosecution permitted the storage of images not embodying changes from the previous images.

Importantly, the applicants distinguished a prior art patent to Saitoh (U.S. Pat. No. 4,777,526) on the ground that, in the invention, “[e]ach of the pending independent claims specifically recites that the second image is stored on a digital storage when the extent of change is greater than the reference value.” Amendment (Aug. 14, 1996), at 3, Dkt. No. 82-2, at 87. The applicants distinguished Saitoh on the ground, inter alia, that “the system of Saitoh et al continues the prior art practice of recording data for a ‘predetermined period of time’ whether or not there is any change from one image to the next.” Id. The problem for the plaintiffs is that the applicants’ description of the prior art Saitoh patent is, in essence, what the plaintiffs are arguing for in support of their proposed claim construction, which would allow claim 4 to read on a method that stores images even when there is no change between images.

The plaintiffs’ claim construction theory is further undermined by another remark made by the applicants later in the prosecution. After describing the operation of the system, the applicants added, “Because the present invention stores only the images which occur when there has been a change, a surveillance system incorporating the present invention can monitor and record activity in a secured area over a long period of time while using a minimum amount of data storage space. The present invention stores the actual image that has a detected change in it and this is in sharp contrast to the prior art which uses a detected change in images merely for generating a trigger signal that is used to initiate video storage for later occurring images.” Amendment (Sept. 17, 1997), at 5, Dkt. No. 82-2, at 130.

That statement, like the similar statement made earlier in the prosecution, clearly disclaims any system that stores images that have not been changed. The disclaimers are unequivocal, and the plaintiffs are bound by them.

The plaintiffs argue, Dkt. No. 90, at 4, that the final interview summary is helpful to their argument, but the Court is not persuaded. The examiner ultimately withdrew his rejection when the applicants added the word “only” before the words “when” and “if” to clarify the circumstances in which the second image would be saved. The applicants stated at that time that the terms “only if” and “only when” meant “that a particular second image is stored when the comparison test is met, and it is not stored when the comparison test is not met.” Supplemental Amendment (Nov. 6, 1997), Dkt. No. 82-2, at 136. The examiner responded that the amendment “would clearly define ‘only when’ as signifying a condition precedent function.” Interview Summary (Nov. 3, 1997), Dkt. No. 82-2, at 142. Although the plaintiffs seek some comfort from the examiner’s use of the term “condition precedent,” it is evident from the context in which that statement was made that the examiner was expressing the view, consistent with the consistent position taken by the applicants earlier in the prosecution, that the invention entailed storing images when they were changed and not storing them when they were not changed. The interview summary contains nothing that is inconsistent with that understanding.

Contrary to the plaintiffs’ contention, pressed at oral argument, that the use of the term “comprising” in the claim supports their construction, they cannot avoid the effect of the disclaimers in the prosecution history by relying on the use of the term “comprising.” The law is clear that the term “comprising” cannot be used to allow the claim to read on methods that contain steps that were specifically excluded by the claim language, the specification, and the

prosecution history. As the Federal Circuit has noted, “‘comprising’ is not a weasel word with which to abrogate claim limitations.” Spectrum Int’l, Inc. v. Sterilite Corp., 164 F.3d 1372, 1380 (Fed. Cir. 1998). Although the term “comprising” creates a presumption that the list of elements in a claim is nonexclusive, see Genentech, Inc. v. Chiron Corp., 112 F.3d 495, 501 (Fed. Cir. 1997), the presumption does not “reach into each of the [recited] steps to render every word and phrase therein open-ended—especially where, as here, the patentee has narrowly defined the claim term it now seeks to have broadened.” Dippin’ Dots, Inc. v. Mosey, 476 F.3d 1337, 1343 (Fed. Cir. 2007). The characterization of the invention in the specification and the claims, as well as the disclaimers in the prosecution history, makes clear that the invention entails limiting the number of images that are stored, which is inconsistent with the plaintiffs’ theory that claim 4 would read on a method in which, after a second image is stored, every succeeding image is stored, regardless of whether there were any changes in any of them. Thus, the term “comprising” is of no more help to the plaintiffs in this case than it would be in the case of a claim reciting an automobile engine comprising a variety of components, including “only three cylinders,” in which the patentee argued that the claim read on an eight-cylinder engine because the claim used the term “comprising.” See Trading Techs. Int’l, Inc. v. eSpeed, Inc., 595 F.3d 1340, 1354-55 (Fed. Cir. 2010) (term “comprising” does not allow the claim to be read in a manner that is contrary to the description of the invention in the specification and to the prosecution history); Moleculon Research Corp. v. CBS, Inc., 793 F.2d 1261, 1271-72 (Fed. Cir. 1986) (term “comprising” does not open the claim and its individual method steps to additional structural elements).

The plaintiffs also argue that the defendants' claim construction would preclude the storage of data identifying the stored images, such as time and date information. That is incorrect. Although the first part of the defendants' proposed claim construction could be read more broadly, the defendants have made clear that their claim construction simply limits the "images" that are stored; it is not intended to affect any other data that may be stored with the images.

In sum, the plaintiffs' proposed claim construction on its face is not objectionable, but the plaintiffs' interpretation of their proposed claim construction makes clear that it needs supplementation in order to ensure that the claim language is not expanded unacceptably. At the same time, however, the defendants' proposed claim construction is not as clear as it could be. The Court concludes that the proper construction can be achieved in a relatively straightforward manner by combining the first portion of the plaintiffs' proposed construction and the second portion of the defendants' proposed construction. The Court will therefore construe the "storing" limitation as follows:

"the second digitized image is stored when the determined number of pixels exceeds the reference number, and it is not stored when the determined number of pixels does not exceed the reference number. When the determined number of pixels does not exceed the reference number, no image is stored."

2. “storing said new digitized image in a digital storage only if said determined number of pixels exceeds said reference number” in claim 5

The proper construction of the “storing” limitation of claim 5 follows directly from the analysis of the “storing” limitation of claim 4. Accordingly, the “storing” limitation of claim 5 is construed as follows:

“the new digitized image is stored when the determined number of pixels exceeds the reference number, and it is not stored when the determined number of pixels does not exceed the reference number. When the determined number of pixels does not exceed the reference number, no image is stored.”

3. “storing said second image in a digital storage only when said extent of change is greater than said reference value” in claim 7

The proper construction of the “storing” limitation of claim 7 follows by analogy from the analysis of the “storing” limitation of claim 4. Accordingly, the “storing” limitation of claim 7 is construed as follows:

“the second image is stored when the extent of change to a determined number of pixels is greater than the reference value, and it is not stored when the extent of change is not greater than the reference value. When the extent of change is not greater than the reference value, no image is stored.”

4. “digitizing” in claims 4, 5, and 7

The plaintiffs propose that no construction of this term is necessary. In the alternative, they propose the following construction: “creating a digital image.”

The defendants propose the following construction: “converting from analog to digital.”

Again, the real dispute regarding claim construction is not fully reflected in the proposed claim constructions, but becomes apparent only in view of the parties' arguments as to how they interpret the competing claim constructions. In light of the briefing and oral argument on claim construction, it is clear that the plaintiffs' position is that "digitizing" does not require that a signal be converted from analog form into digital form, and that it is enough if the output of the "digitizer" is a digital image, even if the input is a digital signal that contains all the image information. The defendants, on the other hand, contend that a "digitizer" must produce a digital signal from something that is not digital, i.e., it must convert an analog signal into a digital one. The Court agrees with the defendants.

The intrinsic evidence supports the defendants. For example, claim 7 contains the following steps: "transferring an output signal from a video security camera to an image digitizer," and "digitizing first and second time spaced images from said video camera when said camera is connected to said image digitizer." The parties have agreed that the term "image digitizer" means "a device that converts an analog image input into a digital image output." Given that agreed-upon construction of the term "image digitizer" and the conjunction of "image digitizer" and "digitizing" in claim 7, it is clear that "digitizing" is the function performed by the image digitizer, which is to convert an analog image input into a digital image output.

Claim 1 contains the same juxtaposition of the terms "image digitizer" and "digitizing." The use of the same terms in the same relationship in claim 1 further underscores the point that, at least in the context of the '346 patent, the term "digitizing" means converting an analog signal input into a digital signal output—more specifically, converting an analog image input into a digital image output.

The specification supports that construction of the term “digitizing.” The specification describes the “digitizer” as being connected to the output of a video switch. ’346 patent, col. 2, ll. 18-20. In Figure 12 of the patent, the video switch is shown as 12 and the digitizer is shown as “video board” 104. The specification describes the function of the digitizer as follows: “The video board 104 receives an analog video input sign [sic: signal] and upon command from the computer 16 captures a frame which comprises a video image, digitizes that image and provides it as digital data to the computer 16.” Id. at col. 4, ll. 43-48. Thus, the specification describes “digitizing” as the process of converting an analog video input signal into digital output data.

Finally, the defendants’ proposed construction is contrary to the definition of “digitizing” in an authoritative technical dictionary published at about the time the patent application was filed. That dictionary, The IEEE Standard Dictionary of Electrical and Electronics Terms (6th ed. 1996), defines the term “digitize” to mean “(1) (mathematics of computing) To express analog data in digital form. (2) (image processing and pattern recognition) To convert graphical data, such as a drawing, into digital data that can be processed by a computer graphics system. (3) To convert an analog signal to a digital signal.” Id. at 289. All three definitions express the notion of converting analog information into digital form, and the third definition—the one most applicable to the technology of the patent—is the definition offered by the defendants in their proposed claim construction.

Other contemporaneous technical dictionaries contain similar definitions of the term “digitize.” See, e.g., Chambers Dictionary of Science and Technology 329 (1999) (“To convert an analog signal into a digital signal.”); Microsoft Computer Dictionary 161 (5th ed. 2002) (“To convert any continuously varying (analog) source of input . . . to a series of discrete units

represented in a computer by the binary digits 0 and 1.”); Webster’s New World Dictionary of Computer Terms 148 (6th ed. 1997) (“The process of transforming analog data into digital form.”). That extrinsic evidence makes it clear that the term “digitize,” as of the time the application was filed, referred to converting analog signals into digital form. The plaintiffs have no convincing answer to that extrinsic evidence.

For all of these reasons, the Court is persuaded that the plaintiffs’ proposed construction of the term “digitizing” is too broad. It would include any conversion of a digital signal into a digital image, even if no conversion to digital form was involved. The basic concept of the term “digitize” is to convert something from a non-digital form to a digital form, which would not be required by the plaintiffs’ definition. The Court therefore construes the term “digitizing” in claims 4, 5, and 7 as follows:

“converting from analog into digital.”

5. “on a pixel basis” in claims 4 and 5

The plaintiffs propose the following construction: “pixel by pixel.”

The defendants propose the following construction: “single pixel by single pixel.”

Once again, the proposed claim constructions conceal the real nature of the dispute between the parties. Although it is not apparent from the competing proposed constructions what the core disagreement is between the parties, the briefs and oral argument make clear that there is a significant claim construction dispute lying beneath the surface of the seemingly similar proposed constructions.

The plaintiffs’ brief makes clear that although they agree that images are to be compared “by comparing corresponding pixels,” they believe the ’346 patent does not limit “this

comparison such that multiple pixels can be compared to multiple corresponding pixels at the same time.” Dkt. No. 82, at 11. Their reply brief makes this even clearer: “The two images are compared on a pixel-by-pixel basis to determine the number of pixel differences. . . . This could be done by comparing multiple pixels at the same time or as part of an algorithm that permits a pixel-by-pixel comparison to be done more efficiently using mathematical averages or other advanced techniques.” Dkt. No. 90, at 6. The plaintiffs complain that the defendants’ proposed construction would improperly limit the comparison by requiring it to be performed “by examining one pixel at a time.” Dkt. No. 82, at 11. In their view, the defendants’ proposed construction “implies that only one pixel can be compared at a given time to another pixel.” Dkt. No. 90, at 6.

The defendants are correct that a comparison “on a pixel basis” means that each pixel in one image must be compared to a corresponding pixel in a second image. According to the defendants, the plaintiffs’ “pixel by pixel” construction is designed to encompass “any kind of comparison of blocks of pixels, including comparing aggregate properties of blocks of pixels, such as average or maximum luminance of the block.” Dkt. No. 87, at 18. The plaintiffs do not deny that they intend for their proposed construction to encompass such “block by block” comparisons or averaging.

The claims and the specification support the defendants’ interpretation. Claim 4 recites steps that determine “the number of pixels in corresponding locations . . . which have amplitudes that differ by more than a preset amplitude,” and then compare “said determined number of pixels with a reference number to establish if said determined number of pixels exceeds said reference number.” That language strongly suggests that the comparisons are done with

reference to a particular, determined number of pixels, not by comparing blocks of pixels or average luminance over a block of pixels.

The specification states that the second image is compared “on a pixel-by-pixel basis” with the first image “to determine the number of pixel differences.” ’346 patent, col. 10, ll. 54-56. A threshold is set “to determine what constitutes a similar or different pixel.” If the difference between corresponding pixels in the two images is at least [a determined amount], then that pixel is designated as having changed.” *Id.*, col. 10, ll. 57-63. That description is consistent with a comparison of individual pixels in the second image with corresponding pixels in the first. It does not support the plaintiffs’ suggestion that some form of averaging or comparison of blocks of pixels can be used in the comparison process.

Contrary to the plaintiffs’ contention, Dkt. No. 82, at 11, there is nothing in the defendants’ proposed construction that suggests that the pixels must be compared sequentially rather than simultaneously. The “single pixel by single pixel” construction does not speak to timing; it speaks only to the requirement that the pixels be compared individually, pixel by pixel, rather than in groups, blocks, or averages of pixels.

When this Court previously construed the term “on a pixel basis” in Trover Group, Inc. v. Tyco Integrated Security, Inc., Case No. 2:13-cv-52 (E.D. Tex. July 28, 2014), the Court’s construction was intended to incorporate the concept of comparing individual pixels in the second image with corresponding individual pixels in the first image by adopting the construction “pixel by pixel.” The Court rejected the defendants’ proposal to construe that phrase in claim 4 to mean “by comparing each pixel in the first digitized image to the pixel in the same location in the second digitized image” because the Court found the defendants’

requirement that the respective pixels be in the “same location” to be potentially confusing and to add a limitation not found in the claim. The Court ruled that it was enough that the respective pixels were in corresponding locations in the two images. Id. at 17. The Court regarded the construction “pixel by pixel” to be sufficient to capture that concept. However, the plaintiffs have now made clear that they interpret that “pixel by pixel” construction to permit comparisons of blocks or averages of pixels, which is contrary to what the Court intended the construction in the Tyco case to entail and contrary to what the Court believes is the proper construction in this case. Accordingly, the Court will use the unambiguous language proposed by the defendants. The term “on a pixel basis” is construed to mean: **“single pixel by single pixel.”**

6. “capturing a first image . . . and digitizing said first image which comprises a first digitized image which comprises an array of pixels” in claim 5

The defendants argue that the “capturing a first image” limitation of claim 5 is indefinite and that it renders claim 5 invalid as a result. The Court disagrees. Although all parties concur that claim 5 is poorly drafted, the claim is understandable despite its drafting flaws. The Court is persuaded that the claim would be reasonably clear to a person of ordinary skill in the art and therefore is not indefinite. See Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2124 (2014).

The language of the “capturing a first image” limitation of claim 5 is a mess. Unlike the relatively straightforward language of claim 4, which refers to “capturing a first image . . . and digitizing said first image to produce a first digitized image which comprises an array of pixels,” claim 5 goes off the track when it recites “digitizing said first image which comprises a first digitized image.” What was obviously intended was a concept similar to that found in claim 4,

which used the phrase “to produce a first digitized image” instead of the phrase “which comprises a first digitized image.” Even substituting the word “constitutes” for the word “comprises” in that phrase might have been awkward, but would have made sense. As it is, the phrase is difficult to parse, because the word “comprises” simply does not belong after “first image” and before “first digitized image.” Nonetheless, claim construction is not a test of proper English, and an error in diction or usage does not automatically result in the invalidation of a patent. See CBT Flint Partners, LLC v. Return Path, Inc., 654 F.3d 1353, 1358 (Fed. Cir. 2011) (claim is not indefinite because “there is an obvious and correctable error in the claim, the construction of which is not subject to reasonable debate”).

In this case, it is clear what the disputed claim language covers. It covers “digitizing a first image to produce a first digitized image” or “digitizing a first image, resulting in a first digitized image.” The concept is a disarmingly simple one and can be readily discerned even with the awkward phrasing of the claim: the first image is digitized and thereby becomes a digitized image.

The clues as to the true meaning of the disputed phrase are easily found. First, the second “capturing” limitation uses the “to produce” formulation from claim 4, and reads “digitizing said new image to produce a new digitized image which comprises an array of pixels.” The designed parallelism between that “capturing” limitation and the first “capturing” limitation is obvious, and it is therefore clear that the meaning attached to the second “capturing” limitation applies equally to the first. Second, it is clear from the specification that the first image is digitized to produce a first digitized image from the signal received from the video camera. ’346 Patent, col.

9, ll. 18-19. There is thus no ambiguity about what the first “capturing” limitation of claim 4 covers, just poor draftsmanship.

7. “wherein said second images can be read from said digital storage” in claim 5

The defendants argue that this limitation from claim 5 is indefinite. Again, the Court disagrees.

The problem with the phrase “wherein said second images can be read from said digital storage” is that there is no proper antecedent basis for the term “said second images.” Unlike claim 4, claim 5 does not consistently use “first image” and “second image” to refer to the two images captured in the claimed method. Rather, after initially referring to the “first image,” claim 5 then refers not to “a second image,” but to “a new image,” which is digitized to produce a “new digitized image.” That usage continues in the claim until the “storing said new digitized image” limitation, at which point the claim recites: “storing said new digitized image in a digital storage only if said determined number of pixels exceeds said reference number, wherein said second images can be read from said digital storage” (emphasis added). Because there was no previous reference to “second images,” the term “said second images” lacks a proper antecedent basis.

The failure to include an antecedent basis for a claim term does not necessarily invalidate the claim. The Federal Circuit has noted that it is a “well-settled rule that claims are not necessarily invalid for a lack of antecedent basis.” Microprocessor Enhancement Corp. v. Texas Instruments Inc., 520 F.3d 1367, 1376 (Fed. Cir. 2008); see also Energizer Holdings, Inc. v. Int’l Trade Comm’n, 435 F.3d 1366, 1370-71 (Fed. Cir. 2006) (“[D]espite the absence of explicit antecedent basis, ‘[i]f the scope of a claim would be reasonably ascertainable by those skilled in

the art, then the claim is not indefinite.”), quoting Bose Corp. v. JBL, Inc., 274 F.3d 1354, 1359 (Fed. Cir. 2001); Manual for Patent Examining Procedure § 2173.05(e) (9th ed. Mar. 2014) (“Obviously, however, the failure to provide explicit antecedent basis for terms does not always render a claim indefinite. If the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite.”).

While the error regarding the absent antecedent is clumsy, it does not make it difficult to understand what the limitation covers, and despite the error, a person of skill in the art would readily understand the meaning of the claim. From the context, it is obvious that the term “second images” is meant to refer to the “new digitized image” (and, collectively, all “new digitized images”) stored in digital storage and retrievable from digital storage. Indeed, it is difficult to think of a different possible meaning for the phrase in the “storing said new digitized image” limitation. The claim is therefore not indefinite, and claim 5 is not invalid.

As for the defendants’ objection that the term “second images” is in the plural, while the term “new digitized image” is in the singular, that seems to be further evidence of the carelessness with which claim 5 was drafted, but it does not make the claim ambiguous. In referring to the “second images” in the plural, the claim simply alludes to the fact the invention contemplates that multiple second images will be captured, be stored, and be available for retrieval from storage.

8. “a [said] reference number” and “a [said] reference value” in claims 4, 5, and 7

The plaintiffs propose that no construction is necessary. In the alternative, they propose the following construction: “a/said set number” and “a/said set value.”

The defendants propose the following construction: “a preset threshold” for both terms.

Claims 4 and 5 state that the number of pixels that are different between the first image and the second image is compared to the “reference number” in order to determine whether the second image is changed (and thus whether it will be stored). The reference number therefore must be known before the comparison is made. For that reason, the defendants urge that the construction of the term include the requirement that the threshold be “preset.”

Claim 7 recites that one of the claimed steps is “comparing said extent of change to a reference value to determine if said extent of change is greater than said reference value.” The reference value serves to determine whether individual pixels have changed enough to be considered among the pixels to be counted as changed. Again, the reference value must be known before that comparison is made. For that reason, as in the case of the reference number, the defendants argue that the construction of the term should include the requirement that the threshold be “preset.”

The Court finds the term “preset” to be potentially confusing. The use of that term might be understood to suggest a threshold or number that cannot be changed or adjusted at any point by the user of the method. In the Court’s view, the terms “reference number” and “reference value” are clear enough without construction to be readily understandable to the jury, since the jury will be familiar with the specification and the claims, which use that term in a manner that is not difficult to comprehend. Accordingly, the Court concludes that for those terms **no construction is necessary.**

9. “retrieving for examination from said digital storage at least one of said . . . images” in claims 4, 5, and 7

The plaintiffs propose that no construction is necessary.

The defendants propose the following construction for claim 4: “retrieving a particular stored second digitized image from the digital storage so that it can be viewed by a user.” The defendants propose similar constructions for claims 5 and 7, except that the term “stored digitized image” is substituted for “stored second digitized image” in the proposed construction for claims 5 and 7.

The plaintiffs object to the defendants’ proposed construction on two grounds. First, they object to the inclusion of the term “a particular image” in the defendants’ proposed claim construction, whereas the claims use the words “retrieving at least one of said second digitized images” (claim 4), “retrieving at least one of said digitized images” (claim 5) and “retrieving at least one of said second images” (claim 7). Second, they object to the inclusion of the requirement that the image or images be retrieved “so that it can be viewed by a user,” whereas the claims merely refer to retrieving the image or images “for examination.” According to the plaintiffs, the claims do not put any restrictions on whether “particular” images are retrieved, as long as “at least one” image is retrieved, and the claims do not put any limitations on who or what will be examining the retrieved images.

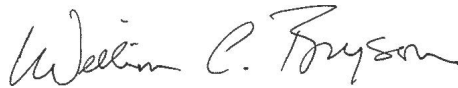
For their part, the defendants argue that the claims require the ability to selectively retrieve a particular second digitized image, rather than the generic ability to make all images available for examination, and that the images must be viewable by human users of the methods, not merely processed by a computer.

The Court is not persuaded that the additional restrictions urged by the defendants are required by the claims. An ability to retrieve “at least one of the images” encompasses the ability to retrieve all of the images. As for the “for examination” portion of the “retrieving”

limitation, the claim language calls for the images to be retrieved “for examination,” but it says nothing (nor does the specification) about who will conduct that examination or how it will be conducted. Even if the examination is conducted by a process that is in part or in whole automated, it is hard to see why that would not still constitute an “examination” that would fall within the scope of the claims. The limitation contains no terms that have special meaning in the context of the patent or that would prove difficult for a jury to understand. The Court therefore agrees with the plaintiffs that **no construction is needed for these terms.**

IT IS SO ORDERED.

SIGNED this 19th day of March, 2015.

A handwritten signature in black ink, reading "William C. Bryson". The signature is written in a cursive, flowing style. Below the signature is a horizontal line.

WILLIAM C. BRYSON
UNITED STATES CIRCUIT JUDGE